July 2, 2001

VIA E-DOCKET

Ms. Donna Caton, Chief Clerk
Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62794-9280

Re: Docket Nos. 00-0393

Dear Ms. Caton:

Enclosed for filing, please find the following documents on behalf of Sprint Communications Company L.P. d/b/a Sprint Communications L.P. in the above-referenced docket:

1. Direct Testimony on Rehearing of James R. Burt, Sprint Exhibit No. 3.0;

2. Direct Testimony on Rehearing of Dr. Brian K. Staihr, Sprint Exhibit No. 4.0; and

3. Direct Testimony on Rehearing of James Dunbar, Sprint Exhibit No. 5.0.

Thank you for your assistance in this matter. Please call me if you have any questions.

Very truly yours,

Kenneth A. Schifman

KAS:sjw
Enclosures
cc: Service List
(w/enclosures)

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company	)
Proposed Implementation of High	)
Frequency Portion of Loop (HFPL)/	) Docket No. 00-0393
Line Sharing Service	)

DIRECT TESTIMONY ON REHEARING OF DR. BRIAN K. STAIHR ON BEHALF OF SPRINT

I. BACKGROUND

Q. Please state your name, title, and business address.

A. My name is Brian K. Staihr. I am employed by Sprint Corporation as Senior Regulatory Economist in the Department of Policy and Regulatory Affairs. My business address is 6360 Sprint Parkway, Overland Park, Kansas 66251.

Q. Please briefly describe your educational background and work experience.

A. I hold a B.A. in Economics from the University of Missouri, and an M.A. and Ph.D. in Economics from Washington University in St. Louis. My field of specialization is Industrial Organization, including Regulation.

I have been a part of Sprint's Regulatory Policy Group since 1996. In my current position I am involved with the development of state and federal regulatory and legislative policy for all divisions of Sprint Corporation. I am also involved with the coordination of policy across business units. My particular responsibilities include 1) ensuring that Sprint's policies are based on sound economic reasoning, 2) undertaking or directing economic/quantitative analysis to provide support for Sprint's policies, and 3) conducting original research. The specific policy issues that I address include universal service, pricing, costing (including cost of capital), access reform, reciprocal compensation and interconnection, local competition, and more.

In my position I have appeared before the Kansas Corporation Commission, the Florida Public Service Commission, the New Jersey Board of Public Utilities, the Pennsylvania Public Utility Commission, the North Carolina Public Utilities Commission, the Public Service Commission of South Carolina, the Public Service Commission of Nevada, the Texas Public Utilities Commission, and the Missouri Public Service Commission. I have also worked extensively with the Federal Communication Commission's staff and presented original research to the FCC.

In January 2000 I left Sprint temporarily to serve as Senior Economist for the Federal Reserve Bank of Kansas City. There I was an active participant in the Federal Open Market Committee process, the process by which the Federal Reserve sets interest rates. In addition, I conducted original research on telecommunication issues and the effects of deregulation. During that period my research was presented to the Governors of the states of Georgia, Arkansas, Kentucky and to the staff of the Governor of Minnesota, as well as to the U.S. Department of Agriculture. At that time I also assisted the O.E.C.D. on a multi-national investigation regarding the economic effects of advanced telecommunications service deployment. I returned to Sprint in December 2000.

For the past five years I have also served as Adjunct Professor of Economics at Avila College in Kansas City, Missouri. There I teach both graduate and undergraduate level courses.

Prior to my work in Sprint's Regulatory Policy Group I served as Manager-Consumer Demand Forecasting in the marketing department of Sprint's Local Telecom Division. There I was responsible for forecasting the demand for services in the local market, and producing elasticity studies and economic and quantitative analysis for business cases, opportunity analyses, etc.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your rebuttal testimony?

A. In this testimony I address certain issues raised in the testimonies of Ameritech-sponsored witnesses Dr. Debra Aron, Dr. Stanford Levin and Dr. Robert Crandall. Specifically, for all three, I address the purported consumer benefits that are produced if Ameritech is allowed to refuse to unbundle portions of Project Pronto. In the process, I address the description of essential elements included in the testimony of Dr. Levin. I also address the section of Dr. Crandall's testimony in which he discusses the rules and standards for identifying network elements to be unbundled, also known as the necessary and impair standards.

Q. Regarding consumer benefits, do Ameritech's three economists produce compelling evidence of the consumer benefits that will be produced if Ameritech is allowed to refuse to unbundle Project Pronto?

A. Not at all. On the contrary, the very few arguments that are presented detailing the purported consumer benefits of not unbundling Project Pronto are based on conjecture, are misleading, or are based on extremely unlikely assumptions.

Q. What are the benefits to Illinois consumers if Project Pronto UNEs <u>are</u> unbundled?

A. Simply stated, when Project Pronto is unbundled Illinois consumers will have more choices for advanced telecommunications services, the product space will be expanded by the introduction of innovative services such as Sprint's ION, and there will be robust competition which will produce efficiencies, a controlling effect on prices, and other benefits consistent with the pro-competitive goals of the 1996 Telecom Act.

III. DR. STANFORD LEVIN

Q. Can you briefly characterize the purported consumer benefit described in the testimony of Ameritech witness Dr. Stanford Levin?

A. According to Dr. Levin (pp. 14-15), unbundling Project Pronto UNEs is "detrimental to customers" because it would delay or reduce or prevent facilities-based competition. He believes that consumers benefit from facilities-based competition (if it is not produced as a result of artificial incentives). He goes on to state that unbundling Project Pronto UNEs only benefits consumers if they (the UNEs) are "essential" facilities, and he does not believe Project Pronto UNEs are essential facilities.

Q. Does Dr. Levin provide any evidence that explains how customers are harmed if UNEs are unbundled that are, in his terms, not "essential"?

A. No. On pages 12-13 he states that unbundling non-essential UNEs might mean that competitors would enter a market using UNEs instead of using a facilities-based approach. And clearly Dr. Levin believes that a facilities-based approach is preferable (page 11). This raises two specific questions: 1) Why does Dr. Levin feel that a facilities-based approach is preferable, and 2) How exactly are customers harmed if they are offered a service using UNEs, as opposed to a service that is facilities-based?

Starting with (1), Dr. Levin claims that facilities-based competition is preferable because only facilities-based competition offers customers "true competitive choices" (p. 13) or "true choice, rather than the choice of buying the same underlying service from a selection of service providers" (p. 11).

Q. Is this correct?

A. No. Not only is it incorrect, but Ameritech's other economist Dr. Debra Aron testifies that it is incorrect. On page 30 of her testimony Dr. Aron states that "CLECs want access to this equipment [Project Pronto UNEs] because they want to be able to provide services that are different from the ADSL service that SBC contemplated…" (emphasis in original). Sprint's ION is one such service and it is clearly not just the "same underlying service" that Dr. Levin refers to, because it offers customers different capabilities and functionalities beyond standard DSL. These capabilities include, among others, the ability of a customer to change functions and features on voice lines, and even the possibility of dynamic bandwidth allocation in certain cases.

Dr. Levin's claim that UNEs offer customers "the same underlying service" is also incorrect according to the FCC. In the 1999 UNE Remand Order the Commission cites its First Report and Order in CC Docket 96-98 and states, "The Commission stated that carriers using unbundled elements will have greater opportunities to offer services that are different than those services offered by the incumbents."[1]

Furthermore, even if Dr. Levin was correct (which he is not) that UNE-based entry does not provide customers with different services, there is no support for his claim that somehow this does not represent a "true" choice for consumers. Economists that deal with consumer demand know that customers make purchase decisions not only based on price, but based on a variety of attributes and characteristics that any good or service exhibits.[2] Sometimes it is the product itself that is differentiated (a BMW versus a Ford Taurus, or Sprint's ION versus Ameritech's ADSL). In other cases the decision may be based on aspects of the purchase that are not a function of the product but rather how the product is sold. Examples of this might be a consumer choosing to see a movie in Theater X instead of Theater Y because Theater X has more comfortable seats. Or an Illinois resident purchasing a DSL service through a CLEC because she (rightly or wrongly) perceives a difference in customer service. As economist George Norman has stated, "Consumers' preferences do not relate to final products as such but to the characteristics embodied in those final products."[3] From the standpoint of consumer choice theory, Dr. Levin's

[1] UNE Remand Order, (Third Report and Order and Fourth Further Notice of Proposed Rulemaking, CC Docket 96-98, released November 5, 1999), paragraph 68.

[2] See, for example, K. Lancaster's seminal work, *"A New Approach to Consumer Theory"*, Journal of Political Economy, 1966.

[3] "*Monopolistic Competition: Some Extensions from Spatial Competition"*, Regional Science and Urban Economics, 1989.

characterization that these types of choices are not "true" choices is simply wrong.

According to the most recent data from the FCC over sixteen million end users currently purchase basic local telephone service from a CLEC rather than an ILEC.[4] The majority of these customers are not served using what Dr. Levin refers to as facilities-based service.[5] In fact, nearly seven million lines are provided through simple resale. Clearly these customers see some explicit benefits to using an alternate provider, otherwise they would not choose to do so. If there were no benefit to non-facilities based competition, Congress and the FCC would not have encouraged it and the 1996 Telecom Act would not have obligated ILECs to provide it. The same applies to advanced services such as DSL.

At the risk of misinterpreting Dr. Levin's testimony, I believe it is accurate to rephrase his position slightly and suggest that Dr. Levin's belief is that UNE-based competition does not benefit consumers **as much** as facilities-based competition does. And his view could be summarized (somewhat casually) as follows: UNE-based competition produces what might be called "me-too" products, products that are similar to those offered by the incumbent LEC only they are sold by different providers. If consumers

4 *Local Telephone Competition: Status as of December 31, 2000*; Industry Analysis Division, Common Carrier Bureau, FCC. Released May 21, 2001.

5 Clarification is needed here because while Dr. Levin makes a distinction between facilities-based competition and UNE-based competition, the FCC has sometimes included the purchase of unbundled elements in its definition of facilities-based service. "A carrier that offers the supported services through unbundled network elements, in whole or in part, satisfies the

purchase these products, they (the consumers) do not benefit as much as much as they would if they purchased different products sold by different providers. While that may or may not be true, and Sprint contends it is not true at all, Dr. Levin's arguments that follow directly from this view are highly questionable: Dr. Levin suggests:

1. Because the services offered through UNEs are essentially the same as what Ameritech offers (e.g. not a "true choice" (p. 11), "the illusion of competition" (p. 13)), competitors should not be allowed to offer these "me-too" services.
2. The reason competitors should not be allowed to offer "me-too" services is because if the Commission denies competitors the right to UNEs, the competitors might be forced to put in their own facilities and offer a different service, and that is what (according to Dr. Levin) would benefit consumers most.

In Dr. Levin's view, that is how customers are harmed if they are offered a service over UNEs, instead of through facilities-based competition: the harm is that the "right" type of competition might not develop.

facilities requirement of section 214 (e)." FCC USF Report and Order, CC Docket 96-45, paragraph 24, released May 7, 1997.

Q. Is this view consistent with the views of the other economists Ameritech has sponsored?

A. Ameritech-sponsored witness Dr. Debra Aron suggests almost exactly the opposite: On pages 29-30 of her testimony she glowingly describes Ameritech's wholesale broadband service offering which allows CLECs to purchase the same ADSL service that Ameritech offers at TELRIC based prices. She writes, "In light of this offering one might wonder why CLECs would want direct access to "Project Pronto UNEs"."

Q. Returning to Dr. Levin's testimony, from the perspective of consumer benefit does it make sense to deny competitors the right to Project Pronto UNEs so they will be forced to deploy their own facilities?

A. No, for several reasons. First, the purported advantage that Dr. Levin attributes to facilities-based competitions? the "different service" argument? is clearly incorrect based on Sprint's own product offerings, the opinion of the FCC, and the testimony of Dr. Aron.

Second, Dr. Levin suggests that he is willing to forgo one type of real competition for what he perceives to be a "better" type of competition in the future. I am not sure that Illinois consumers would agree. In fact, it would be interesting to question the majority of the sixteen million CLEC customers the FCC has identified nationwide to see if they would be willing to forgo the choices they have currently made in the hopes that other choices would possibly emerge in the future.

Third, Dr. Levin completely ignores the likelihood that, for some regions of Illinois, the absence of UNE-based competition will not lead to more rapid facilities-based competition, but instead will lead to simply no competition except resale. It is extremely unlikely that any Illinois resident is well served by a policy of "no-competition-unless-it's-the-right-kind-of-competition". Yet that is exactly what Dr. Levin is proposing.

Fourth, and most importantly, Dr. Levin also ignores the very real possibility that a competitor might use UNE-based entry as a means of gaining a foothold in an area, which would ultimately lead toward providing facilities-based competition once a critical mass of customers had been acquired. If true facilities-base competition is the end goal that Dr. Levin feels is most beneficial, his advocacy of not unbundling UNEs is a step in the wrong direction toward that goal.

Q. Throughout his testimony Dr. Levin makes reference to what he calls "essential" facilities, and says that unbundling only benefits customers if the elements are "essential" facilities (page 15). Do Ameritech's other economists support this position?

A. Neither of Ameritech's other economists, Dr. Debra Aron or Dr. Robert Crandall, makes any reference to anything called "essential" facilities.

Q. Do you agree with Dr. Levin's description of "essential" elements and his assessment that Project Pronto UNEs are not essential?

A. Dr. Levin has produced a term that he has defined to suit his needs. The 1996 Act does not refer to "essential" elements when it discusses unbundling in Section 251 (d). The FCC, in its UNE Remand Order, does make reference to an antitrust doctrine known as the essential facilities doctrine, but the Commission explicitly states that they do not believe it is appropriate to apply this doctrine in the case of unbundled elements. Specifically, the Order states,

> "We find it [the essential facilities doctrine] to be of limited assistance in our analysis of the unbundling obligations of the Act because…the Act plainly imposes on incumbent LECs a broader duty to deal with competitors than does the essential facilities doctrine."[6]

If Dr. Levin's definition and subsequent conclusion (that unbundling only benefits customers if the elements are essential) are based on the essential elements doctrine, the FCC has said that this definition is incorrect for our purposes here. But more importantly, the justification provided by Dr. Levin is exactly the same as discussed above: that unbundling non-essential UNEs might delay facilities-based competition. Once again, Dr. Levin seems to be saying that the Commission should adopt the position "If customers can't have the optimal choice (in his opinion) then they are better off having no choice."

[6] UNE Remand Order, paragraph 60.

Q. Are Project Pronto UNEs essential facilities?

A. At the risk of giving undo credence to Dr. Levin's distinction (essential/non-essential) the answer is clearly yes. If, purely for the sake of discussion, we accept his definition of "essential" then Project Pronto UNEs are clearly "essential".

Q. Please explain.

A. In discussing this issue, it is important to keep in mind the distinction between the service and the inputs needed to provide the service. Dr. Levin's defines this "essential" facility as one that "cannot be economically or technically duplicated by a competitor" (page 10)[7]. In that sentence he is clearly referring to facilities or equipment, not the end-user service that the equipment provides, because his definition describes this facility as something that is needed to provide the service, or in other words, an input.[8]

But Dr. Levin's argument mistakenly places emphasis on the end-user service, not the duplication of the element. On page 11, he states that "because there are alternatives in the market to using an ILEC's network for high-speed Internet and data access" the facilities that make up the ILEC's network cannot be regarded as essential. In other words, because there are other services that are similar to ADSL, and these other services

[7] Using that definition, one could argue that the ILEC's entire network is an essential facility since it could not be economically duplicated in its entirety.

use other equipment, the LEC's equipment that is used to provide ADSL is not essential. (The alternatives that he refers to include cable modems, fixed wireless, and satellite services.)

Dr. Levin has confused his definition of "essential", which is the technical or economic inability to duplicate the equipment used to provide one particular service, with the fact that other services exist that meet the same customer needs and use other equipment. The fact that other services can be provided with other equipment does not mean that the ILEC's network is suddenly duplicable. For a CLEC that is providing the same service as Ameritech, ADSL, and not an alternative-but-similar service (cable modems, satellite) it is economically impossible to duplicate the ILEC's elements. It is also economically impossible for Sprint to duplicate Ameritech's 2000 remote terminals to provide its ION service. Sprint witness Jim Burt discusses the actual costs in his testimony. To summarize, Dr. Levin's defense as to why Project Pronto UNEs are not "essential" is the fact that substitute services exist that use other equipment. But by his own definition, that fact has nothing to do with the ILEC's network being incapable of duplication.

[8] Although he does use the word "service" in that sentence he is clearly referring to one service that acts as an input in the provision of another service.

Q. On page 13 of his testimony Dr. Levin provides a statement that might be viewed as a summary of his "essential" facilities argument. He states, "the purpose of unbundling is to permit competition when such unbundling is the only way to do so, due to the existence of essential facilities…" Is this statement consistent with the 1996 Act and the FCC's interpretation of the Act?

A. Not at all. Dr. Levin characterizes unbundling as some type of last resort, something to fall back on when no other option exists. There is nothing in the 1996 Act or in any of the FCC's 96-98 Orders the supports this interpretation. The necessary and impair standards (which I address more fully below) discussed in the FCC's UNE Remand Order specifically make reference to an element being unbundled if a CLEC's ability to provide a service is materially diminished without it, not if a CLEC has examined and exhausted every other avenue of entry and is left only with the option of purchasing UNEs.[9]

Q. Please summarize your response to Dr. Levin's testimony.

A. Dr. Levin has created an arbitrary distinction in his definition of "essential" elements, and has drawn conclusions based on that distinction that are both unsupportable and inconsistent with the FCC and the 1996 Act. There is no justification for denying a CLEC access to Project Pronto elements in the hope that they would then be forced to undertake facilities-based entry.

II. DR. DEBRA ARON

Q. Does Dr. Aron discuss consumer benefits in the context of unbundling Project Pronto?

A. In her testimony, Dr. Aron presents a slightly confusing picture of the benefits that consumers will or will not enjoy. On page 23 of her testimony she discusses the high-speed data market, and the status of cable modem deployment within that market, and Ameritech's DSL offering. She states that "Illinois consumers of broadband services would certainly benefit from the availability of an alternative to cable modem service."

But six pages later, when discussing the alternative services that competitors could provide to consumers using unbundled Project Pronto UNEs, the question is asked whether or not it is good for consumers to have more choices of services, and she responds that "it might or might not be, depending on the additional cost caused by the additional variety" (page 30). She goes on to briefly mention trade-offs between the costs (in terms of efficiency) and the benefits (in terms of increased choices). So it is possible to summarize Dr. Aron's position as follows: If Ameritech is offering a new alternative, clearly that is a good thing. But if some other competitor is offering a new alternative, that might or might not be a good thing.

[9] UNE Remand Order, paragraph 51.

Q. Isn't that somewhat inconsistent?

A. Yes. The fact is, the trade-offs she refers to exist any time any firm decides to enter or not enter a market. As she says, there are benefits to consumers having an alternative to cable modems (whether that alternative is Ameritech's ADSL or Sprint's ION). There are also costs.

Q. Please discuss this trade-off.

A. Stated very simply, classic industrial organization theory states that you can have more firms producing smaller quantities of a good or service, or fewer firms producing larger quantities of a good or service. If there are economies of scale in the production process, as there are in many telecommunications services, goods can be produced more efficiently at higher levels of output. So it is better to have fewer firms producing larger quantities of output, instead of more firms with each producing smaller quantities of output. But that condition only holds in its purest sense if the good or service produced is identical among firms or, as economists put it, homogeneous.

If goods or services are not identical, but are differentiated (economists use the term heterogeneous) then there are benefits to the variety. The trade-off Dr. Aron is referring to is this: Consumers benefit from the variety, because consumers have varied tastes and some consumers may prefer Sprint ION while others prefer cable modems. Obviously the overall benefit level is higher if consumers have a choice and each can purchase what he or she prefers. But this means neither Sprint nor the cable company will serve the entire market. Each will produce a lower level of "output", which in this case is measured in terms of high-speed data customers. Because (theoretically) they could produce more efficiently at a higher level of output, there are efficiency losses to the firm when each only serves a part of the market.[10]

Q. So if there is a trade-off, can we really know if consumers benefit from competitive alternatives?

A. Yes we can, for two reasons. First, the benefit falls directly to the customer but the cost is to the firm. Although one might be tempted to say that the firm passes this cost on to the consumer, it is well-known that consumers are willing to pay prices that reflect product differentiation. Second, there is more to the trade-off than Dr. Aron suggested. It is true that consumers benefit from variety, and it is also possible that this variety leads to lower efficiency on the part of the firm. But this variety also has an added benefit, and that is to serve as a controlling factor on prices. Turning to the book that Dr. Aron referenced in her testimony (page 30), economists Carlton and Perloff state, "If firms produce differentiated products, the entry of new firms helps consumers for two reasons: it

[10] See, for example, classic articles by Spence (*Product Selection, Fixed Costs, and Monopolistic Competition*, Review of Economic Studies, June 1976) and by Dixit/Stiglitz (*Monopolistic Competition and Optimum Product Diversity*, American Economic Review, June 1977.)

lowers prices and increases the variety of products from which to choose."[11]

Q. But isn't there a controlling factor of price (in the form of competitive pressure) if CLECs simply purchase broadband (at TELRIC rates) through Ameritech's wholesale offering, as discussed by Dr. Aron on page 30?

A. Yes, but for consumers that is a sub-optimal result for two reasons. First, the entire benefit to consumers from variety, or differentiated products, disappears. Second, and much more importantly, it sets an artificial limit on the choices customers can be offered, and that limit is whatever Ameritech happens to offer them.

Q. Please explain.

A. Basically, Dr. Aron suggests that CLECs can already participate in the ADSL market by offering a "me-too" version of what Ameritech offers as a DSL product. In this case it is truly a "me-too" product since it is Ameritech's product, simply sold through a different channel. In essence, it is the broadband version of You-can-have-any-color-you-want-as-long-as-you-want-black. In this case, you can have any advanced wireline service you want as long as it is exactly what Ameritech intended to offer you. Sprint would like to go beyond that, and use unbundled Project

[11] *Modern Industrial Organization*, Dennis Carleton and Jeffrey Perloff, Scott, Foresman/Little, 1990.

Pronto UNEs in conjunction with its own facilities to offer a truly differentiated product, ION. Sprint would like to expand the choices that are offered to customers in Illinois. Increased choices and increased competition tend to promote innovation. In terms of customer benefits, it is difficult to imagine how customers are better off with fewer choices, or how they are better off having an upper bound on advanced services determined by whatever Ameritech decides to offer.

DR. ROBERT CRANDALL

Q. On pages 21-24 of his testimony Dr. Crandall discusses the necessary and impair standards in the FCC's rules and offers his opinion as to how they apply to Project Pronto unbundling. Please comment.

A. In almost every instance throughout those pages Dr. Crandall either misinterprets or misapplies the FCC's rules, particularly with regard to carriers who are interested in offering services that are distinct from Ameritech's ADSL. With regard to cost, he believes it unlikely that unbundling could produce lower costs than the costs associated with re-selling at TELRIC-based prices (p. 23). While this might be true, the necessary and impair standards explicitly refer to the service the CLEC seeks to offer, not the service the ILEC chooses to provide.[12] Since a re-sold version of Ameritech's ADSL is not the service Sprint seeks to offer,

[12] FCC Rules 51.317(b)(1).

the costs at which it is available do not constitute any type of benchmark here.

Furthermore, the FCC addressed this issue specifically in its UNE Remand Order, paragraph 67, when it stated that the ability of a requesting carrier to use the ILEC's resold services as an alternative to UNEs carried "little weight" in an impair analysis. **The Order goes on to state that the Commission expressly rejected ILECs' arguments that requesting carriers are not impaired in their ability to provide service if they can provide the proposed service by purchasing it wholesale**. Dr. Crandall is suggesting that because CLECs can buy ADSL for resale at TERLIC–based prices that somehow this negates a cost-based impair argument. The FCC's official position is that the existence of resale does not figure into an impair analysis.

Next, Dr. Crandall addresses the timeliness issue. He suggests that alternatives to unbundling, such as resale or CLEC provisioning of DSL over copper sub-loops, will be available before unbundled elements are available (because remote terminals must be built and/or upgraded to NDGLC capabilities.) Therefore, he states, these alternatives are "at least as timely…and in some cases timelier" than unbundling Project Pronto (p. 23).

Again, he misinterprets the true timeliness issue, which in essence states that if using alternative elements takes too long, CLECs are impaired. Dr. Crandall suggests that the alternative—CLECs providing DSL over copper sub-loops—cannot take "too long" because the alternative could happen sooner than the unbundling. But the timeliness issue has to do with delays that a CLEC would experience if it used an alternative to provide the service it seeks to offer. In this case, the alternative is for Sprint to co-locate at every Ameritech remote terminal. Such an alternative would not only delay Sprint's introduction of ION by six months to a year (as discussed in the testimony of Sprint witness Jim Burt) but in fact it would delay it indefinitely, because it is economically infeasible and in many areas would preclude Sprint from offering the service at all! Dr. Crandall suggests that it would be quicker for Sprint to co-locate, and therefore there is no timeliness problem. The fact is that any discussion of the timeliness of alternatives is contingent on those alternatives being feasible, and in this case providing ION over copper sub-loops is not economically feasible for Sprint. As to Dr. Crandall's inclusion of re-sale in the timeliness argument, again we must point out that the FCC does not view re-sale as the type of alternative that should be considered in an impair analysis.

Next, Dr. Crandall addresses the ubiquity argument and claims that "unbundled sub-loops will be far more widely available than unbundled Project Pronto facilities for some time to come." Examining the UNE Remand Order, we see in paragraph 97 that the issue is whether a CLEC can offer the service it seeks to offer ubiquitously using alternatives. The Order states.

> "We agree with competitive LECs that they [CLECs] may be impaired if lack of access to an unbundled element materially restricts the number or geographic scope of the customers they can serve. For example…if a competitive carrier seeks to provide local telephone service throughout the state, it would be impractical, if not impossible, for the carrier to replicate the incumbents' networks."

To borrow the Commission's words, in the case of Project Pronto in Illinois it is both impractical and impossible for Sprint to co-locate in every remote terminal. The language could not be clearer: Sprint is restricted in the number and geographic scope of customers it can serve if Ameritech is allowed to refuse to unbundle Project Pronto.

Finally, Dr. Crandall suggests that unbundling Project Pronto does not deliver advantages when examined with regard to the criteria in FCC rules 51.317(b)(3). Using Sprint ION as an example, Dr. Crandall is mistaken on many key points:

Rapid introduction of competition: If Sprint is denied Project Pronto UNEs, and is required to co-locate in every remote terminal, there will be no competition—rapid or otherwise—in parts of Ameritech's territory for wireline, high-speed data that offers customers a truly differentiated service.

Innovation: By refusing to unbundle Project Pronto UNEs Ameritech is stifling innovation and the introduction of innovative services such as ION. Dr. Crandall seems to share Dr. Aron's sentiment that Illinois consumers are somehow better off if their choices for wireline high-speed data are limited to what Ameritech chooses to offer. Again, it's the case of you-can-have-any-color-you-want-as-long-as-you-want-black.

Investment: Sprint witness Jim Burt testifies to the extensive investment Sprint is undertaking and will undertake to provide ION to the residents of Illinois**.**

Facilities-based competition: As discussed in my response to Ameritech witness Dr. Levin, in many cases UNEs are used as a means of entry and a method for establishing a customer base that ultimately leads to facilities-based competition. To deny a CLEC this means of entry is truly inconsistent with the pro-competitive goals of the 1996 Act and the FCC.

Q. On pages 14-15 Dr. Crandall provides his reasons as to why he thinks customers in Illinois are _______ Project Pronto is unbundled. Please comment.

A. In general, Dr. Crandall's argument follows the lines of Dr. Levin's claim that it is better (for consumers) if CLECs deploy their own facilities. If Project Pronto is unbundled, he warns, "new facilities-based CLECs…might find it more economical to avoid building their own facilities and simply rely on their rival's facilities" (page 14). And Dr. Crandall's implication is that this is a bad thing.

As an economist working for a company that is both a CLEC and an ILEC, I am honestly puzzled by this. The whole justification for the required unbundling that is explicitly discussed in the 1996 Act and FCC's 96-98

Orders is that in many cases it is indeed uneconomical for a CLEC to duplicate the ILEC's network and build its own facilities. In many cases it is also undesirable for a CLEC to duplicate the ILEC's network. As the FCC stated in its UNE Remand Order, discussing the economies of scale enjoyed by ILECs, "Congress has addressed this problem by mandating that incumbent LECs share their economies of scale and density with competitors."[13]

The effect of these economies of scale cannot be over-emphasized. As Sprint witness Jim Dunbar explains in his direct testimony, Project Pronto is actually a CSA deployment that, despite offering high-speed data service, is heavily dependent on voice service and Ameritech's embedded customer base. As Mr. Dunbar testifies, the fact that 75% of the "new" NGDLC remote terminal dollars being spent by Ameritech are attributable to POTS service indicates that there are significant cross-subsidies to be enjoyed from Ameritech's serving close to 100% of the voice market. Any new entrant, whether it is a start-up company or an established competitor such as Sprint, simply cannot duplicate the capital spending associated with an equivalent network build-out because it does not have, already in place, the market that Ameritech has by virtue of its original government-sanctioned monopoly. The FCC specifically addressed this issue at length in its UNE Remand Order. The Order states (in paragraph 86)…

[13] UNE Remand Order, paragraph 85.

> The incumbent LECs still enjoy cost advantages and superiority of economies of scale, scope, and ubiquity as a result of their historic, government-sanctioned monopolies. These economies are now critical competitive attributes and would belong unquestionably to the incumbent LECs if they had "earned" them by superior competitive skills. These advantages of economies, however, were obtained by the incumbents by virtue of their status as government-sanctioned and protected monopolies. We believe these government-sanctioned advantages remain barriers to the requesting carriers' ability to provide a range of services to a wide array of customers, and that their existence justifies placing a duty on the incumbent carriers to share their network facilities."

The economies of scale, scope, and ubiquity associated with voice service are the exact same economies that Ameritech enjoys in providing its high-speed data service. And they are the same economies that the FCC has mandated should be shared. They are, in fact, exact duplicates of the economies that cable television companies enjoy and that make possible their cable modem service. But in the overwhelming majority of cases it would be impractical to suggest that a company competing with a cable provider for cable modem service should build its own cable network. Yet that is, in essence, what Dr. Crandall is suggesting. In the cite above the FCC explicitly refers to economies of scale, scope, and ubiquity as barriers to entry, economic barriers to entry. Contrary to what Dr. Crandall suggests, in most situations it is not simply a case of a CLEC "choosing" to use UNEs instead of building its own facilities.

On these same pages Dr. Crandall make reference to one facilities-based CLEC, RCN, that passes his house in Washington using its own facilities.

Sprint does not doubt that there are certain areas, or certain neighborhoods in which the combination of 1) layout of customer premises, 2) customer density, and 3) customer profiles all come together to create a situation in which facilities-based competition (in the form of duplicating the ILEC's network) is economically feasible. In certain neighborhoods it might even be economically justified from a social welfare standpoint (in terms of the increased customer benefit offsetting the costs associated with wasted resources.) But it seems that Dr. Crandall (and Dr. Levin) would have us believe that it is always justified, always feasible, and therefore anything "less" in their eyes—such as unbundling Project Pronto—is harmful to consumers.

Using Dr. Crandall's CLEC, RCN, as an example we can see that facilities-based competition is occurring and will continue to occur where it makes sense economically, regardless of the unbundling obligations under which LECs operate. (It is highly doubtful that Verizon in the Washington D.C. area is exempt from unbundling, and that RCN has been forced to deploy its own network. Most likely, RCN is deploying its own network despite the fact that Verizon also offers unbundled elements, because it makes economic sense to do so.) But in cases where facilities-based competition does not make economic sense, it seems Dr. Crandall would deny consumers the choices that they could enjoy from UNE-based competition.

Contrary to Dr. Crandall's claims, consumers will not be harmed if Project Pronto UNEs are unbundled. Facilities-based competition will occur, just as it occurs in his own neighborhood, where it makes sense. And in the meantime, and in other areas that cannot support facilities-based competition, consumers will enjoy increased benefits.

Q. Does this conclude your testimony?

A. Yes it does.